

**HEALTH CARE USE & POLICY STUDIES – Disease Management****PHP6****ROUTINE OF PATIENTS' REDIRECTION IN THE HUNGARIAN PRIMARY CARE**Lipp S<sup>1</sup>, Boncz I<sup>2</sup>, Gresz M<sup>2</sup>, Varga S<sup>2</sup>, Oláh A<sup>2</sup>, Marada G<sup>2</sup>, Sebestyén A<sup>1</sup><sup>1</sup>National Health Insurance Fund Administration, Pécs, Hungary; <sup>2</sup>University of Pécs, Pécs, Hungary; <sup>3</sup>National Health Insurance Fund Administration, Budapest, Hungary

**OBJECTIVES:** The aim of this study is to analyze the GPs' routine of redirection. We reveals which diagnoses induce the most frequent redirection cases to specialists, which specialties are the most frequently targeted and how the distance from the nearest outpatient unit influences the GPs' practice. **METHODS:** The analysis is based on the monthly reports (B300 form of the Hungarian National Health Insurance Fund Administration (OEP) of 701 general practitioners. Study covers the years 2008 and 2009, 14 million visits of 952 thousand inhabitants of South-Transdanubian Region of Hungary. GPs' redirection routine is measured by the redirection rate, which shows the number of redirections related to the number of GP visits (%). **RESULTS:** The population of the region decreased by 0.8% over the years 2008–2009, however the number of GP visits increased by 12%. The surplus is mainly due to the H1N1 vaccination campaign and the rise of cardiovascular diseases and respiratory diseases of allergic origin. The average redirection rate was 10%. 76% of the GPs' surgeries are located not farther than 15 km from the nearest outpatient unit, and 62% not farther than 15 km from a hospital. The distance from the nearest outpatient unit influences the redirection rate, but this impact is not determining. The most frequently needed specialties are rheumatology, cardiology, pulmonology and orthopedics. GPs direct their patients of 0–14 years to specialists more rarely than patients of 15 years or above and also the referred diagnoses vary between the two age groups. **CONCLUSIONS:** The redirection rate is lower on case of young patients and higher on case of adult, and elderly patients. While young patients get to specialists mainly due to acute and chronic respiratory diseases (many of them have allergic origin), orthopaedic malformations or simply health monitoring, adult patients have cardiovascular, rheumatic, and endocrine problems.

**PHP7****AN EXPLORATORY STUDY EVALUATING THE PREPAREDNESS OF PRACTICING COMMUNITY PHARMACISTS IN MALAYSIA FOR MANAGEMENT ROLES**

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**OBJECTIVES:** To evaluate the preparedness of the community pharmacists in the State of Penang in six main management functions: Accounting, finance, human resource management, marketing management, planning, and directing. **METHODS:** A cross-sectional study design was carried out with a total of 100 community pharmacists practicing in the State of Penang, Malaysia. A pre-validated questionnaire, containing 3 sections was used as data collection tool. All data was analyzed using SPSS for Windows version 13.0. Inferential statistics were used whenever appropriate at alpha value of 0.05 or less considered significant. **RESULTS:** A total of 50 pharmacists successfully responded to the survey. When respondents were asked about the percentage of time spent in actual management functions, 42% of them responded that their time is being spent on actual management functions. More than 60% of community pharmacists said that most of the time, they undertake tasks in accounting, finance, human resource management, marketing management, planning, and directing. When respondents were compared in terms of their demographics, the time overseas graduates showed better preparation and performance of management functions compared to local graduates. **CONCLUSIONS:** The findings of this study showed that most of the community pharmacists understand and undertake the management functions in running their community pharmacy business. Furthermore the findings suggested that local pharmacy graduates were less prepared to undertake various management functions compared to their overseas graduated counterparts.

**PHP8****INTERVENTIONS TO REDUCE HOSPITAL READMISSIONS IN THE ELDERLY**Linertová R<sup>1</sup>, García-Pérez L<sup>1</sup>, Vázquez-Díaz JR<sup>2</sup>, Lorenzo-Riera A<sup>3</sup>, Sarriá-Santamera A<sup>4</sup><sup>1</sup>Fundación Canaria de Investigación y Salud (FUNCIS), Las Palmas de Gran Canaria, Spain;<sup>2</sup>University Hospital of Canary Islands, Santa Cruz de Tenerife, Spain; <sup>3</sup>Primary Care Services of Gran Canaria, Las Palmas de Gran Canaria, Spain; <sup>4</sup>Agency for Health Technology

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**OBJECTIVES:** Unplanned hospital readmissions of elderly people present an increasing burden for health systems. This could be, theoretically, reduced by adequate preventive interventions. However, there is uncertainty about the effectiveness of different types of interventions. The objective of this systematic review was to summarise available evidence on the effectiveness of interventions to reduce the risk of unplanned readmissions in patients of 75 years and older and to determine the role of home care components. **METHODS:** We searched studies in MEDLINE, CINAHL, CENTRAL and seven other electronic databases up to October 2007 and updated the search in MEDLINE up to October 2009. Clinical trials (randomized or controlled) evaluating the effectiveness of an intervention to reduce readmissions in elderly patients compared to a control group were selected. Quality was assessed by the SIGN tool. The extracted information was presented in text and tables. **RESULTS:** Thirty-two clinical trials were included and divided into two groups: in-hospital interventions (17 studies) and

interventions with home follow-up (15 studies). Three studies from the first group and seven from the second group found positive effects of the evaluated intervention on readmission outcome. **CONCLUSIONS:** Most of the evaluated interventions did not have any effect on readmissions of elderly patients. However, those interventions that comprised some kind of home care seem to be more likely to reduce readmissions in the elderly.

**HEALTH CARE USE & POLICY STUDIES – Drug/Device/Diagnostic Use & Policy****PHP9****BUDGET IMPACT ANALYSIS OF ORPHAN DRUGS IN BELGIUM: ESTIMATES FROM 2008 TO 2013**Denis A<sup>1</sup>, Mergaert L<sup>1</sup>, Fostier C<sup>1</sup>, Cleemput I<sup>2</sup>, Simoens S<sup>3</sup><sup>1</sup>Yellow Window Management Consultants, Antwerp, Belgium; <sup>2</sup>Belgian Health Care Knowledge Centre, Brussels, Belgium; <sup>3</sup>K.U. Leuven, Leuven, Belgium

**OBJECTIVES:** This study aims to calculate the impact of orphan drugs on the Belgian drug budget in 2008 and to forecast its impact over the following five years. **METHODS:** The 2008 budget impact was calculated by triangulating information derived from multiple Belgian data sources, including Ministerial Decrees, figures published by the National Institute for Health and Disability Insurance, and reimbursement files submitted to the Drug Reimbursement Committee. The 2008–2013 budget impact analysis was based on three scenarios reflecting different levels of growth in the number of registered orphan drugs in the European Union, the number of drugs reimbursed in Belgium, and the average annual cost per patient per drug in Belgium. The price year was 2008. **RESULTS:** At the end of 2008, 31 different orphan drugs were approved for reimbursement in Belgium for 35 different indications. The annual number of Belgian patients treated varied between 1 and 1080 patients per orphan drug. The cost per patient per year ranged from €4600 to €411,000 between orphan drugs. The orphan drug budget impact amounted to €66.2 million (or 5% of the Belgian hospital drug budget) in 2008. The impact would increase to €130–€204 million in 2013, depending on the scenario. **CONCLUSIONS:** The analysis showed that the budget impact of orphan drugs in Belgium is substantial and rising, thereby putting pressure on total drug expenditure. This static analysis measured orphan drug costs only, assuming that other components of health expenditure do not change over time. Policy options to address the rising budget impact include pricing linked to return on investment, risk-sharing arrangements and re-appraisal of orphan drug status if additional indications are approved.

**PHP10****DOES THE MARKET SHARE OF GENERIC MEDICINES INFLUENCE THE PRICE LEVEL? A EUROPEAN ANALYSIS**

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**OBJECTIVES:** This study aims to investigate the relationship between the market share of generic medicines and the medicine price level in European off-patent pharmaceutical markets. **METHODS:** Data on medicine volumes and on medicine values for a basket of 35 active substances were derived from IMS Health. Ex-manufacturer medicine prices were calculated by dividing market value by market volume. The analysis was limited to medicines in immediate-release, oral, solid dosage forms. The included countries were Austria, Belgium, Denmark, Germany, France, Italy, the The Netherlands, Spain, Sweden and the United Kingdom, which constitute a mix of countries with low and high generic medicines market shares. Data were available from June 2002 until March 2007. **RESULTS:** Market value has seen a substantial decrease in high generic market share markets (–26.6%), while the decrease in low market share markets was marginal (–0.06%). Market volume has risen in both high generic market share markets (+29.27%) and low market share markets (+27.40%) but the cause of rise is different for the two markets. In low generic market share markets, the rise was caused by the increased use of generic medicines while in high market share markets the rise was driven by the increased use of generic medicines and a shift of use from originator to generic medicines. In high generic market share markets, medicines prices have dropped by –43.18% and in low market share markets by –21.56%. **CONCLUSIONS:** The extent to which price competition from generic medicines leads to price reductions appears to vary according to the market share of generic medicines. High market share markets of generic medicines have seen a larger decrease in medicine prices than low market share markets. Countries need thus to create an environment which stimulates the generic medicines use and so increases the market share.

**PHP11****NEW AND IMPROVED: DEFINING INNOVATION FOR HEALTH TECHNOLOGY POLICY**

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**OBJECTIVES:** Both individuals and society stand to benefit from encouraging health technological innovation—individual patients through quicker access to promising technologies, and society through the development of a competitive life sciences sector. The “Innovation Pass” (UK) and the “Critical Path Initiative” (US) are 2 examples of current health policies aimed at promoting innovation. However, there does not seem to be a clear agreement on what constitutes innovation. The objective of this project